

Introduction to the Human Body With A Krama Inggil Language-Based Microcontroller ATmega 16

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ABSTRACT

The introduction of human limbs with language-based Krama Inggil ATmega microcontroller 16 is a tool that serves to introduce the members of the human body in one language Krama Inggil based microcontroller ATmega 16. This tool is made for the purpose as a medium of learning for elementary school children. While the use of language Krama Inggil this tool works so that children can learn, know, and can use the language Krama Inggil well in their daily lives.

Designing the introduction of human limbs with language-based Krama Inggil ATmega 16 microcontroller is composed of hardware and software. Hardware designed using Proteus7.7 ISIS *software*, this *software* is used as a *debugger* (simulator) and used for preliminary analysis before making the product. ISIS Proteus7.7 can combine with BASCOM AVR *software* so that it can be used also to analyze programs created using BASCOM AVR. ISIS Proteus7.7 also used as a circuit design to PCB design. The hardware used for the design to identify the members of the human body with language-based Krama Inggil ATmega 16 microcontroller consists of (1) image and text viewer using the *Graphics LCD* (2) Minimum system ATmega 16 (3) *Keypad matrix* using a diode as a rectifier currents. While the form of software programs in C programming language is written using BASCOM AVR *software*, which consists of (1) main courses (2) hardware initialization program (3) The definition of the processor, using ATmega 16 (4) Definition LCD (5) Definition Port (6) Declare a variable and (7) the main function.

Based on the test results can be known about the performance of the human body to identify the members Krama Inggil language. This tool is able to display pictures and writings of members of the human body according to the input provided through the *keypad matrix*.

Keywords: *Graphics LCD*, ATmega 16, *Keypad Matrix*